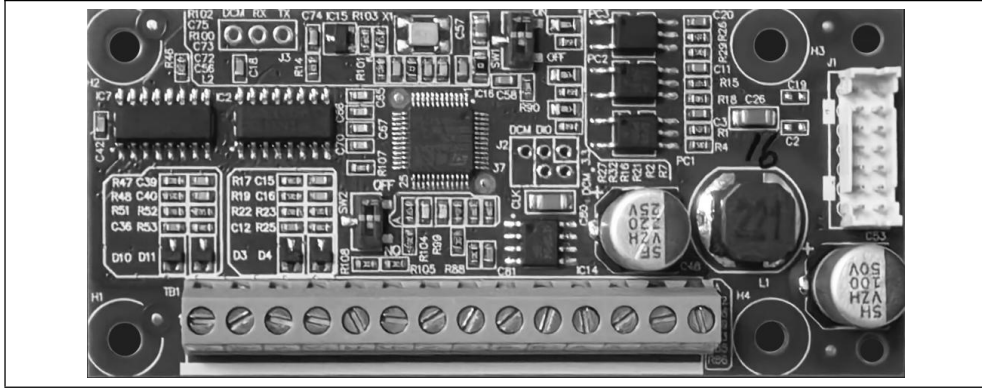


UV-PG-UVWLD1(Line drive) S3100U series PG card

Operation manual

Thank you to purchase UV-PG-UVWLD1 card .

1. External view



2. Terminal instructions

Terminal	Functions
PO	Internal encoder output power supply(output power source: +5VDC 0%~+10%,≤200mA;When Encoder loading current over 200mA, please select external power)
DCM	Common port for power source and signal
A+、A- B+、B- Z+、Z- U+、U- V+、V- W+、W-	Encoder feedback signal input terminals(signal pulse Max 100kHz) Cable no more than 100m (when Cable specification is AWG16).

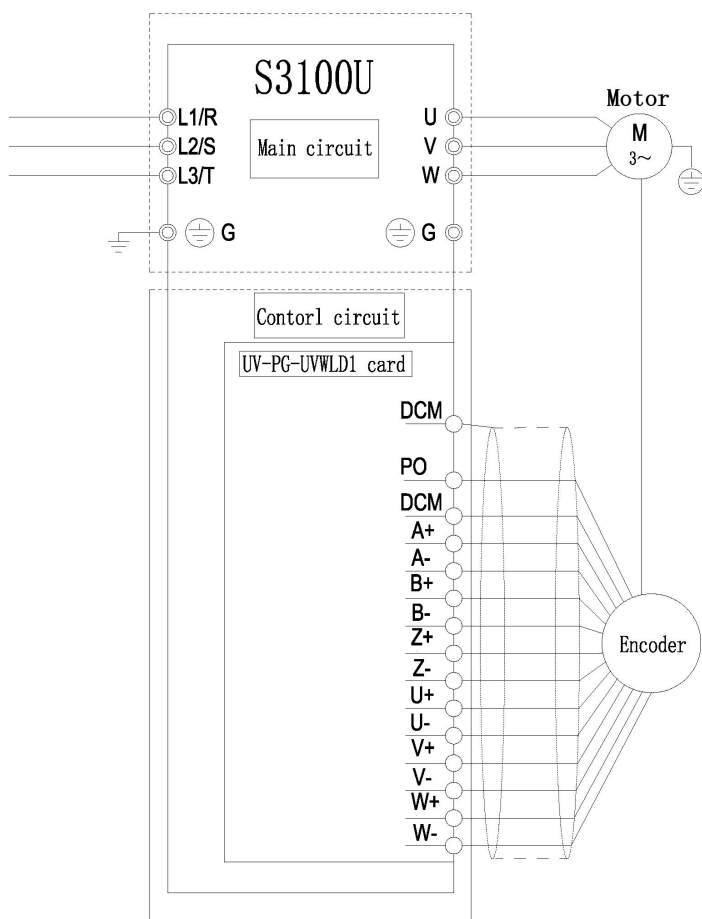
Notes:Terminal use screw :M2, Cable:AWG16~24, Screw torque:0.22~0.25N.m.

3. Functions of various switches

Switch symbol	Functions
SW1	Work mode switching switch ON: Normal operating mode (factory settings). OFF: BOOT
SW2	Selection of incremental encoders: ON: Standard UVW (factory condition). OFF:Provincial Line Type UVW

4.Wiring figure

The image below for vector control wiring figure with velocity feedback.



Remark:

The signal lines is susceptible by external noise, so for signal lines, please use the shielded wire, and wiring as short as possible (below 20m). the shielding layer of shielding wire is recommended to disconnect on PG side (encoder) , make it as one wire to connect DCM on PG card.

5. Related Parameter Settings

The inverter connects to this PG card through the optional port J5. Before using the card, the communication parameters of the optional port need to be set first:

Parameter	Function	Factory setting	Description
12-20	Interface address	1	The address used by the card is fixed at 1
12-21	Baud rate	9	The communication baud rate between the card and the inverter is 115200bps
12-22	Data format	1	The data format of the card is fixed at 8-E-1
12-23	Communication response delay	5	Response delay setting

The relevant parameter settings of the PG card are detailed in the table below (parameters marked with * are read-only):

Parameter	Function	Setting range	Factory setting	Description
12-40	IOPG card code	--	0	This card code is H.3131, power-on PG card writing.
12-41	IOPG card software version number	--	--	Power-on PG card writing
12-42	PG card pulse angle state	0~65535	--	
12-44	PG card status word	Bit0: U signal level Bit1: V signal level Bit2: W signal level Bit8: Communication status indicator Bit15: Fault status indicator	0	
01-27	Number of encoder pulse lines	1~65535	1024	
01-28	Encoder type	0: ABZ incremental encoder 1: UVW incremental encoder	0	
01-30	Encoder Phase Sequence/Primary Direction	0: Forward 1: Reverse	0	
01-31	Encoder installation angle	0.0~359.9°	0.0°	
01-32	UVW sense	0: Forward 1: Reverse	0	
01-35	UVW number of pole-pairs	1~65535	4	
02-32	Enable Z signal correction	0: Disable 1: Enable	1	
02-51	Initial position compensation angle	0.0°~360.0°	0.0°	
99-29*	Encoder feedback speed	--	0.00Hz	Basically consistent with the output frequency (with direction symbols)

6.Fault Codes

When a PG card malfunctions, the inverter will display the corresponding fault. The details are shown in the table below.

Display	Description	Possible reason	Corrective-measures
Err0d	Encoder fault	1.Encoder Wiring Error. 2.Malfunction caused by interference. 3.Check if grounding is good.	1.Check Wiring. 2.Check if surrounding devices have strong interference sources.

Quanzhou Factory

Address:3# Zixin Road, Jiangnan Hi-Tech Industrial Park,
Quanzhou, Fujian, China
Tel: +86 595-24678267 Fax: +86 595-24678203

Service Network

Wensite: www.savch.net
V1.0 2025-12-31



Savch Wechat
Service Number